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NOTICE OF ALLOWANCE AND FEE(S) DUE

28784 7590 07/09/2008

GERGORY W. O'CONNOR
4701 HOMESTEAD
LITTLETON, CO 80123

EXAMINER

DASS, HARISH T

ART UNIT

PAPER NUMBER

3692

DATE MAILED: 07/09/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/995,178

11/27/2001

Michael D. Bergmann

P-M B-01

5423

TITLE OF INVENTION: METHOD OF ASCERTAINING AN EFFICIENT FRONTIER FOR TAX-SENSITIVE INVESTORS

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES | \$720 | \$300 | \$0 | \$1020 | 10/09/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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28784 7590 07/09/2008

GERGORY W. O'CONNOR
4701 HOMESTEAD
LITTLETON, CO 80123

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

| |
|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/995,178 11/27/2001 Michael D. Bergmann P-M B-01 5423

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| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|----------------|----------|----------------|
| DASS, HARISH T | 3692 | 705-036000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| 28784 | 7590 | 07/09/2008 | EXAMINER | |
| GERGORY W. O'CONNOR 4701 HOMESTEAD LITTLETON, CO 80123 | | | DASS, HARISH T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3692 | |
| DATE MAILED: 07/09/2008 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1281 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1281 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

09/995,178

Examiner

Harish T. Dass

Applicant(s)

BERGMANN ET AL.

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/3/2008 and 6/18/2008.
2. ☒ The allowed claim(s) is/are 1,2 and 7-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Applicant's Fax of 6/18/2008</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/2008 has been entered.

2. This Allowance is based on Applicant's faxed 06/18/2008 and RCE filed on 4/3/2008.

3. Note: Applicant's Affidavit and Declaration of Prior Invention to overcome prior art of record, under 37 CFR 1.31, submitted on 4/3/2008 has been considered.

Examiner's Amendment

4. Status of Claims:

Claims 3-6 are canceled (where claim 6 was canceled by Applicant and claims 3-5 are withdrawn claims canceled by the Examiner with Attorney's phone agreement 6/19/08).

Claims 1-2 and 7-12 are pending and allowed.

5. Examiner's Amendment(s) to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

-- Claims:

1. In a computerized method for financial planning, comprising:
 - a. a computer;
 - b. a computer program to optimize an investor's portfolio in order to maximize total return for any level of risk;
 - c. assuming certain rates of return for various types of investments in the portfolio;
 - d. defining several accounts within the portfolio, each of which accounts have assets, each of which asset in the account being characterized in one or more asset classes, the assets in a particular asset class having tax characteristics in common with one another and the assets in each asset class having a market value, a tax basis, an expected effective tax rate upon liquidation, investment characteristics, including after-tax expected returns and volatility estimates, and pre-tax investment constraints, which investment constraints have the effect of applying upper and lower limits to a financial value of the asset class that must be maintained;
 - e. determining the contingent tax on each asset class by calculating the difference between the market value of the asset class and its tax basis multiplied by the expected effective tax rate upon liquidation;
 - f. determining pre-tax and after-tax constraints on what asset classes are to be contained in the portfolio;
 - g. transforming the pre-tax constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics, including after-tax expected returns and volatility estimates;

h. adjusting market values of each asset class to reflect the effect of the contingent tax on the asset class; and

i. selecting an optimized portfolio.

2. The method set forth in claim 1 wherein the step of transforming the pre-tax constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics further includes, calculating after-tax returns and after-tax standard deviations for each asset class using corresponding pre-tax returns and pre-tax standard deviations.

3-6 (Canceled).

7. A computerized method for optimizing an investor's portfolio in order to maximize total expected rate of return for a given level of risk, which method includes

using an electronic computer configured by a computer program;

assuming certain expected total rates of return for various assets in the portfolio;

defining several accounts within the portfolio, each of which accounts have financial investments;

categorizing each asset in the portfolio as being in one or more asset classes and one or more accounts, the assets in a particular asset class and account having tax characteristics in common with one another, determining for each asset class in an account its market value, a tax basis, an effective tax rate upon liquidation, and other pre-tax and after-tax investment characteristics, including after-tax expected returns, and any pre-tax and after-tax investment

constraints to which it may be subject, each of which investment constraints includes an upper limit and a lower limit on a linear combination of financial values of each asset class within each account;

determining the contingent tax on each asset class within each account by calculating the difference between the market value of the asset class within each account and its tax basis multiplied by its anticipated effective tax rate upon liquidation;

finding the after-tax market value of each asset class in each account by netting the asset class market value and its contingent tax;

transforming the pre-tax investment constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics, including after-tax expected returns and risk measures, and

constructing an optimized portfolio by finding the after-tax market values for each asset class within each account consistent with all after-tax constraints that produce the highest expected after-tax rate of return to the portfolio for a given level of after-tax risk for the portfolio.

8. The method of claim 7 including converting the after-tax market values, after-tax returns, and after-tax constraints to their corresponding pre-tax market values, pre-tax rates of return and pre-tax constraints.

9. The method set forth in claim 7 wherein the step of transforming the pre-tax investment characteristics into a set of after-tax investment characteristics further includes calculating the

after-tax standard deviations and after-tax pair-wise correlations of the after-tax rates of return for each asset class within each account using corresponding pre-tax rates of return, the pre-tax standard deviations and pre-tax pair-wise correlations of the pretax rates of return and the tax characteristics of each asset class within each account.

10. The method of claim 9 wherein calculating after-tax standard deviations includes consideration for differing volatilities that may apply to tax characteristics, such as ordinary income and capital gains to assets in the same asset class.

11. The method of claim 9 further including using the after-tax standard deviations and after-tax pair-wise correlations to calculate the level of after-tax risk of the investor's portfolio.

12. The method of claim 9 further including using the after-tax standard deviations that include consideration for differing volatilities that may apply to tax characteristics and after-tax pair-wise correlations to calculate the level of after-tax risk of the investor's portfolio. --

Allowable Subject Matter

6. Claims 1-2 and 7-12 are pending and have been allowed.

The following is an examiner's statement of reasons for the indication of allowable subject matter allowance:

The computerized method for financial planning (claim 1) and computerized method for optimizing an investor's portfolio in order to maximize total expected rate of return for a given level of risk (claim 7) do not have one-to-one relations as limitations are presented, therefore the reason of allowance are written separately.

Independent claims 1 and 7 are allowed because the closes prior arts of records and references of

Frank et al. (US 6,240,399), and Maggioncalda et al. (US 2002/0138386) in any combination failed to teach or render obvious to one of ordinary skill in the art, a method of claims 1 and 7 with all claimed limitations:

The major difference between this invention and relevant prior art Frank (primary reference) and Maggioncalda are limitations not disclosed by either to render the claims obvious such as:

Claim 1 - The prior art of record and Examiner's search (text search of East) and NPL do not disclose or teach the following limitations as applied to the optimization of asset allocations;

a computer program to optimize an investor's portfolio in order to maximize total return for any level of risk;

determining pre-tax and after-tax constraints on what asset classes are to be contained in the portfolio; and

transforming the pre-tax constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics, including after-tax expected returns and volatility estimates;

Claim 7 - The prior art of record and Examiner's search (text search of East) and NPL do not disclose or teach the following limitations as applied to the optimization of asset allocations;

categorizing each asset in the portfolio as being in one or more asset classes and one or more accounts, the assets in a particular asset class and account having tax characteristics in common with one another, determining for each asset class in an account its market value, a tax basis, an effective tax rate upon liquidation, and other pre-tax and after-tax investment characteristics, including after-tax expected returns, and any pre-tax and after-tax investment constraints to which it may be subject, each of which investment constraints includes an upper limit and a lower limit on a linear combination of financial values of each asset class within each account;

transforming the pre-tax investment constraints and pre-tax investment characteristics into a set of after-tax constraints and investment characteristics, including after-tax expected returns and risk measures, and

constructing an optimized portfolio by finding the after-tax market values for each asset class within each account consistent with all after-tax constraints that produce the highest expected after-tax rate of return to the portfolio for a given level of after-tax risk for the portfolio.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harish T. Dass whose telephone number is 571-272-6793. The examiner can normally be reached on 8:00 AM to 4:50 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abdi Kambiz can be reached on 571-272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harish T Dass/
Primary Examiner, Art Unit 3692

6/20/08

Application/Control Number: 09/995,178
Art Unit: 3692

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